



## Complete Summary

---

### GUIDELINE TITLE

Shoulder complaints.

### BIBLIOGRAPHIC SOURCE(S)

Shoulder complaints. Elk Grove Village (IL): American College of Occupational and Environmental Medicine (ACOEM); 2004. 31 p. [68 references]

### GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Harris, J, ed. *Occupational Medicine Practice Guidelines: American College of Occupational and Environmental Medicine*. Beverly Farms, MA: OEM Press; 1997.

### \*\* REGULATORY ALERT \*\*

### FDA WARNING/REGULATORY ALERT

**Note from the National Guideline Clearinghouse:** This guideline references a drug(s) for which important revised regulatory information has been released.

- [June 15, 2005, Non-Steroidal Anti-Inflammatory Drugs \(NSAIDs\)](#): U.S. Food and Drug Administration (FDA) recommended proposed labeling for both the prescription and over the counter (OTC) NSAIDs and a medication guide for the entire class of prescription products.
- [April 7, 2005, Non-steroidal anti-inflammatory drugs \(NSAIDs\) \(prescription and OTC, including ibuprofen and naproxen\)](#): FDA asked manufacturers of prescription and non-prescription (OTC) non-steroidal anti-inflammatory drugs (NSAIDs) to revise their labeling to include more specific information about potential gastrointestinal (GI) and cardiovascular (CV) risks.

### COMPLETE SUMMARY CONTENT

\*\* REGULATORY ALERT \*\*

SCOPE

METHODOLOGY - including Rating Scheme and Cost Analysis

RECOMMENDATIONS

EVIDENCE SUPPORTING THE RECOMMENDATIONS

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

QUALIFYING STATEMENTS

IMPLEMENTATION OF THE GUIDELINE

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT

## SCOPE

### **DISEASE/CONDITION(S)**

Shoulder complaints

### **GUIDELINE CATEGORY**

Diagnosis  
Evaluation  
Management  
Treatment

### **CLINICAL SPECIALTY**

Family Practice  
Internal Medicine  
Orthopedic Surgery  
Physical Medicine and Rehabilitation  
Preventive Medicine  
Surgery

### **INTENDED USERS**

Advanced Practice Nurses  
Physician Assistants  
Physicians  
Utilization Management

### **GUIDELINE OBJECTIVE(S)**

- To provide information and guidance on generally accepted elements of quality care in occupational and environmental medicine
- To improve the efficiency with which the diagnostic process is conducted, the specificity of each diagnostic test performed, and the effectiveness of each treatment in relieving symptoms and achieving cure
- To present recommendations on assessing and treating adults with potentially work-related shoulder complaints

### **TARGET POPULATION**

Adults with potentially work-related shoulder complaints seen in primary care settings

### **INTERVENTIONS AND PRACTICES CONSIDERED**

*Note from the National Guideline Clearinghouse (NGC):* The following general clinical measures were considered. Refer to the original guideline document for information regarding which specific interventions and practices under these general headings are recommended, optional, or not recommended by the American College of Occupational and Environmental Medicine.

1. History and physical exam
2. Patient education
3. Medication
4. Physical treatment methods, activities and exercise
5. Injections
6. Rest and immobilization
7. Detection of physiologic abnormalities
8. Radiography
9. Other imaging procedures
10. Surgical considerations

## **MAJOR OUTCOMES CONSIDERED**

Missed work days

## **METHODOLOGY**

### **METHODS USED TO COLLECT/SELECT EVIDENCE**

Searches of Electronic Databases

### **DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

*Note from the National Guideline Clearinghouse (NGC):* The American College of Occupational and Environmental Medicine contracted the Work Loss Data Institute to provide medical library research services.

#### **Disability-Duration Data**

This edition includes disability-duration data that have been extracted from National Health Interview Survey data. Only data from interviews with individuals without workers' compensation claims has been included.

### **NUMBER OF SOURCE DOCUMENTS**

Not stated

### **METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE**

Expert Consensus  
Weighting According to a Rating Scheme (Scheme Given)

### **RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

A = Strong research-based evidence (multiple relevant, high-quality scientific studies).

B = Moderate research-based evidence (one relevant, high-quality scientific study or multiple adequate scientific studies).

C = Limited research-based evidence (at least one adequate scientific study of patients with shoulder disorders).

D = Panel interpretation of information not meeting inclusion criteria for research-based evidence.

Adapted from Bigos, SJ, Bowyer O, Braen G, et al. Acute Low Back Problems in Adults. Clinical Practice Guideline No. 14. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Agency for Health Care Policy and Research, AHCPR Pub. No. 95-0642; 1994.

## **METHODS USED TO ANALYZE THE EVIDENCE**

Review

## **DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE**

Contributors reviewed at least one chapter each and reviewed the relevant medical literature that had been published since the creation of the original Guidelines in 1997.

## **METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Expert Consensus

## **DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Not stated

## **RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS**

Not applicable

## **COST ANALYSIS**

A formal cost analysis was not performed and published cost analyses were not reviewed.

## **METHOD OF GUIDELINE VALIDATION**

Internal Peer Review

## **DESCRIPTION OF METHOD OF GUIDELINE VALIDATION**

Following the chapter and literature review, participants provided written or verbal comments to the American College of Occupational and Environmental Medicine's Practice Guidelines Committee.

Verbal comments were in the form of participation in multi-specialty conference calls, during which the issues raised in each chapter were extensively discussed. Draft chapters were prepared and distributed by the American College of Occupational and Environmental Medicine to all chapter reviewers. Follow-up multi-specialty teleconferences were then held as appropriate, during which time the draft was again reviewed.

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

Recommendations are followed by evidence classification (A-D) identifying the type of supporting evidence. Definitions for the types of evidence are presented at the end of the "Major Recommendations" field.

**Summary of Recommendations for Evaluating and Managing Shoulder Complaints** (refer to the original guideline document for more detailed information)

Clinical Measure	Recommended	Optional	Not Recommended
History and physical exam	Focused history and exam  Search for red flags (e.g., for tumor, infection, angina) (C)		
Patient education	Patient education regarding condition or disorder, expectations of treatment, side effects, etc. (D)		
Medication (See Chapter 3 in the original guideline document)	Acetaminophen (C)  Non-steroidal anti-inflammatory drugs (NSAIDs) (B)	Opioids, short course (C)	Use of opioids for more than 2 weeks (C)  Muscle relaxants (D)
Physical treatment methods, activities and exercise	Maintain activities of other parts of body while recovering (D)  Maintain passive range of motion of the shoulder with pendulum exercises and wall crawl (D)  Treat initially with strengthening or	At-home applications of heat or cold packs to aid exercises (D)  Short course of supervised exercise instruction by a therapist (D)	Passive modalities by therapist (unless accompanied by teaching the patient exercises to be carried out at home) (D)

<b>Clinical Measure</b>	<b>Recommended</b>	<b>Optional</b>	<b>Not Recommended</b>
	stabilization exercises for impingement syndrome, rotator cuff tear, instability, and recurrent dislocation (C, D)		
Injections	Two or three sub-acromial injections of local anesthetic and cortisone preparation over an extended period as part of an exercise rehabilitation program to treat rotator cuff inflammation, impingement syndrome, or small tears (C, D)  Diagnostic lidocaine injections to distinguish pain sources in the shoulder area (e.g., impingement) (D)		Prolonged or frequent use of cortisone injections into the sub-acromial space or the shoulder joint (D)
Rest and immobilization	Brief use of a sling for severe shoulder pain (1 to 2 days), with pendulum exercises to prevent stiffness in cases of rotator cuff conditions (D)  Three weeks use, or less, of a sling after an initial shoulder dislocation and reduction (C)  Same for acromioclavicular (AC) separations or severe sprains (D)		Prolonged use of a sling only for symptom control (D)
Detection of physiologic abnormalities	Rarely, nerve conduction time of the suprascapular nerve for cases of severe cuff weakness unaccompanied by signs of a rotator cuff tear (D)		Electromyography (EMG) or nerve conduction velocity (NCV) studies as part of a shoulder evaluation for usual diagnoses (D)
Radiography		For acute AC joint separations, stress films (views of both shoulders, with and without	Routine radiographs for shoulder complaints before 4 to 6 weeks of conservative treatment (D)

<b>Clinical Measure</b>	<b>Recommended</b>	<b>Optional</b>	<b>Not Recommended</b>
		patient holding 15-lb weights) (D)	Stress films for instability (D)
Other imaging procedures	Magnetic resonance imaging (MRI) for preoperative evaluation of partial-thickness or large full-thickness rotator cuff tears (C, D)	Arthrography for preoperative evaluation of small full-thickness tears (C)  Bone scan for detection of AC joint arthritis (D)	Routine MRI or arthrography for evaluation without surgical indications (D)  Ultrasonography for evaluation of rotator cuff (C)
Surgical considerations	Anterior repair for recurrent dislocation after 2 to 3 dislocations (D)  Resection of outer clavicle for chronic disabling AC joint pain after conservative care of acute separation (C)  Rotator cuff repair after firm diagnosis is made and rehabilitation efforts have failed (D)  Capsular shift surgery for disabling instability (D)  Subacromial decompression after failure of non-operative care (C)		Anterior repair for initial shoulder dislocation (C)  Acute repair of AC separation (C)  Acute repair of rotator cuff tears, except for massive acute tears (C)  Surgery for recurrent dislocation of instability before rehabilitation efforts (C)

### **Definitions:**

#### **Levels of Evidence**

A = Strong research-based evidence (multiple relevant, high-quality scientific studies).

B = Moderate research-based evidence (one relevant, high-quality scientific study or multiple adequate scientific studies).

C = Limited research-based evidence (at least one adequate scientific study of patients with shoulder disorders).

D = Panel interpretation of information not meeting inclusion criteria for research-based evidence.

## **CLINICAL ALGORITHM(S)**

The following clinical algorithms are provided in the original guideline document:

- American College of Occupational and Environmental Medicine Guidelines for care of acute and subacute occupational shoulder complaints
- Initial evaluation of occupational shoulder complaints
- Initial and follow-up management of occupational shoulder complaints
- Evaluation of slow-to-recover patients with occupational shoulder complaints (symptoms >4 weeks)
- Surgical considerations for patients with anatomic and physiologic evidence of shoulder instability, complete rotator cuff tear, or impingement syndrome coupled with persistent complaints
- Further management of occupational shoulder complaints

## **EVIDENCE SUPPORTING THE RECOMMENDATIONS**

### **TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS**

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

## **BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS**

### **POTENTIAL BENEFITS**

- Improved efficiency of the diagnostic process
- Effective treatment resulting in symptom alleviation and cure

### **POTENTIAL HARMS**

- False-positive or false-negative diagnostic tests
- Risks and complications of surgical procedures and imaging studies (e.g., infection, radiation)

## **QUALIFYING STATEMENTS**

### **QUALIFYING STATEMENTS**

- The American College of Occupational and Environmental Medicine (ACOEM) provides this segment of guidelines for practitioners and notes that decisions to adopt particular courses of actions must be made by trained practitioners on the basis of the available resources and the particular circumstances presented by the individual patient. Accordingly, the American College of Occupational and Environmental Medicine disclaims responsibility for any



- injury or damage resulting from actions taken by practitioners after considering these guidelines.
- The guidelines for modification of work activities and disability duration (see original guideline document) are general guidelines based on consensus or population sources and are never meant to be applied to an individual case without consideration of workplace factors, concurrent disease or other social or medical factors that can affect recovery. The parameters for disability duration are "consensus optimal" targets as determined by a panel of ACOEM members in 1996, and reaffirmed by a panel of ACOEM members in 2002. In most cases persons with one non-severe extremity injury can return to modified duty immediately. Restrictions should take into consideration the opposite extremity also to prevent strain injuries to the uninjured extremity.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

### IMPLEMENTATION TOOLS

Clinical Algorithm

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Getting Better

### IOM DOMAIN

Effectiveness  
Patient-centeredness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

Shoulder complaints. Elk Grove Village (IL): American College of Occupational and Environmental Medicine (ACOEM); 2004. 31 p. [68 references]

### ADAPTATION

Not applicable: The guideline was not adapted from another source.

**DATE RELEASED**

1997 (revised 2004)

**GUIDELINE DEVELOPER(S)**

American College of Occupational and Environmental Medicine - Medical Specialty Society

**SOURCE(S) OF FUNDING**

American College of Occupational and Environmental Medicine

**GUIDELINE COMMITTEE**

American College of Occupational and Environmental Medicine Practice Guidelines Committee

**COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

*Chapter Lead:* Harold E. Hoffman, MD, CCFP, FACOEM, FRCPC

*Committee Members:* Jennifer H. Christian, MD, MPH, FACPM; Philip I. Harber, MD, MPH, FACOEM, FCCP; John P. Holland, MD, MPH, FACOEM; Kathryn L. Mueller, MD, MPH, FACEP, FACOEM; Douglas J. Patron, MD, MSPH; Bernyce M. Peplowski, DO, MS; and Jack Richman, MD, CCFP, DOHS, FACOEM

Timothy J. Key, MD, MPH, FACOEM, as Responsible Officer and ACOEM President Elect, and Edward A. Emmett, MD, MS, FACOEM, Chair of the ACOEM Council on Occupational and Environmental Medical Practice, contributed to the development of the guidelines as well.

**FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

Not stated

**GUIDELINE STATUS**

This is the current release of the guideline.

This guideline updates a previous version: Harris, J, ed. *Occupational Medicine Practice Guidelines: American College of Occupational and Environmental Medicine*. Beverly Farms, MA: OEM Press; 1997.

**GUIDELINE AVAILABILITY**

Print copies are available from ACOEM, 25 Northwest Point Boulevard, Suite 700, Elk Grove Village, IL 60007; Phone: 847-818-1800 x399. To order a subscription to the online version, call 800-441-9674 or visit <http://www.acoempracguides.org/>.

## **AVAILABILITY OF COMPANION DOCUMENTS**

None available

## **PATIENT RESOURCES**

None available

## **NGC STATUS**

This NGC summary was completed by ECRI on May 30, 2006. The information was verified by the guideline developer on November 3, 2006.

## **COPYRIGHT STATEMENT**

The American College of Occupational and Environmental Medicine, the signator of this license, represent and warrant that they are the publisher of the guidelines and/or possess all rights necessary to grant the license rights to AHRQ and its agents.

## **DISCLAIMER**

### **NGC DISCLAIMER**

The National Guideline Clearinghouse™ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at <http://www.guideline.gov/about/inclusion.aspx> .

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

© 1998-2008 National Guideline Clearinghouse

Date Modified: 10/20/2008

